

Appl. No.: 10/618,499
Amdt. dated Sept. 30, 2004
Reply to Office Action of June 30, 2003

I. AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) [[An]] A building article having a smooth, low-gloss surface prepared by (1) impregnating a lignocellulosic material with an isocyanate resin material; (2) removing excess isocyanate resin from the impregnated lignocellulosic material by impinging air at a high flow rate upon the impregnated lignocellulosic material; (3) polymerizing the resin by applying water to the impregnated lignocellulosic material, the water being at a temperature sufficient for polymerization; and (4) removing the water from the polymerized resin-impregnated lignocellulosic material.
2. (Original) The building article of claim 1, wherein the impregnated lignocellulosic material is substantially non-conductive.
3. (Original) The building article of claim 1, wherein the lignocellulosic material comprises material selected from the group consisting of medium density fiberboard, high density fiberboard, oriented strand board, particle board, hemp, sisal, cotton stalk, wheat, straw, bamboo, jute, salt water reeds, palm fronds, flax, groundnut shells, hard woods and soft woods.
4. (Original) The building article of claim 1, wherein the building article comprises a veneer, sheet or panel.
5. (Original) The building article of claim 1, wherein the building article comprises a building component.

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6. (Original) The building article of claim 5, wherein the building component comprises a door component.
7. (Original) The building article of claim 5, wherein the building component comprises a subfloor component.
8. (Original) The building article of claim 5, wherein the building component comprises a roofing substrate component.
9. (Original) The building article of claim 5, wherein the building component comprises a soffit component.
10. (Original) The building article of claim 5, wherein the building component is adapted for marine construction.
11. (Original) The building article of claim 1, wherein the building article comprises a fence component.
12. (Original) The building article of claim 1, wherein the building article comprises a recreational equipment component.
13. (Original) The building article of claim 1, wherein the building article comprises a component of a sign.
14. (Original) The building article of claim 1, wherein the building article comprises furniture.

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15. (Currently Amended) ~~An article comprising a lignocellulosic substrate impregnated with a polyisocyanate material,~~ The article of claim 16, wherein said impregnated lignocellulosic substrate ~~being is~~ substantially non-conductive.

16. (Currently Amended) ~~The article of claim 15,~~ An article comprising a lignocellulosic substrate impregnated with a polyisocyanate material, wherein the impregnated lignocellulosic substrate comprises a smooth, low-gloss surface.

17. (Currently Amended) The article of claim ~~15~~ 16, wherein the impregnated lignocellulosic substrate further exhibits increased strength over an un-impregnated lignocellulosic substrate.

18. (Currently Amended) The article of claim ~~15~~ 16, wherein the impregnated lignocellulosic substrate further exhibits an increased resistance to water over an un-impregnated lignocellulosic substrate.

19. (Currently Amended) The article of claim ~~15~~ 16, wherein the lignocellulosic substrate comprises material selected from the group consisting of medium density fiberboard, high density fiberboard, oriented strand board, particle board, hemp, sisal, cotton stalk, wheat, straw, bamboo, jute, salt water reeds, palm fronds, flax, groundnut shells, hard woods and soft woods.

20. (Currently Amended) The article of claim ~~15~~ 16, wherein the polyisocyanate material comprises methylene diphenyl diisocyanate or poly(methylene diphenyl diisocyanate).

21. (Currently Amended) The article of claim ~~15~~ 16, wherein the polyisocyanate material comprises polyisocyanate resin.

22. (Currently Amended) The article of claim ~~15~~ 16, wherein the lignocellulosic substrate comprises a veneer, sheet or panel.

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23. (Currently Amended) The article of claim ~~15~~ 16, wherein the article comprises a building component.
24. (Original) The article of claim 23, wherein the building component comprises a door component.
25. (Original) The article of claim 23, wherein the building component comprises a subfloor component.
26. (Original) The article of claim 23, wherein the building component is adapted for marine construction.
27. (Original) The article of claim 23, wherein the building component comprises a soffit component.
28. (Original) The article of claim 23, wherein the building component comprises a roofing substrate component.
29. (Currently Amended) The article of claim ~~15~~ 16, wherein the article comprises a fence component.
30. (Currently Amended) The article of claim ~~15~~ 16, wherein the article comprises a recreational equipment component.
31. (Currently Amended) The article of claim ~~15~~ 16, wherein the article comprises a component of a sign.
32. (Currently Amended) The article of claim ~~15~~ 16, wherein the article comprises a furniture component.

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33. (New) The article of claim 16, wherein the substrate is impregnated by application of the polyisocyanate material upon the surface of the substrate with a nozzle.
34. (New) The article of claim 16, wherein the substrate is impregnated by soaking the substrate in the polyisocyanate material.
35. (New) The article of claim 16, wherein the lignocellulosic substrate comprises a preexisting binder binding lignocellulosic material of the substrate.
36. (New) The article of claim 35, wherein the preexisting binder is selected from the group consisting of a urea-formaldehyde resin, a phenol-formaldehyde resin, and a polyurea resin.
37. (New) The article of claim 16, wherein the impregnated substrate is further impregnated with the polyisocyanate material by impinging air upon the surface.
38. (New) The article of claim 16, wherein excess polyisocyanate material on the surface of the impregnated substrate is removed by impinging air upon the surface.
39. (New) The article of claim 16, wherein the smooth, low-gloss surface of the impregnated substrate is polymerized by water.
40. (New) The article of claim 16, wherein the substrate comprises a moisture content that is less than approximately 7% by weight after the substrate is dried and before the substrate is impregnated with the polyisocyanate material.
41. (New) The article of claim 40, wherein the moisture content is about 0.1 to 2.5% by weight after the substrate is dried and before the substrate is impregnated with the polyisocyanate material.

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42. (New) The article of claim 16, wherein the lignocellulosic substrate without impregnation of the polyisocyanate material has an initial water absorption value, and wherein the lignocellulosic substrate impregnated with the polyisocyanate material has a water absorption value that is less than or equal to approximately 80% of the initial water absorption value.

43. (New) The article of claim 16, wherein the lignocellulosic substrate without impregnation of the polyisocyanate material has an initial water absorption value, and wherein the lignocellulosic substrate impregnated with the polyisocyanate material has a water gain value that is less than or equal to approximately 23% of the initial water absorption value.

44. (New) The article of claim 16, wherein the lignocellulosic substrate without impregnation of the polyisocyanate material has an initial water absorption value, and wherein the lignocellulosic substrate impregnated with the polyisocyanate material has a water absorption value that is less than or equal to approximately 14% of the initial water absorption value.